

# 2020 Decadal Survey Perspectives

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Gamma-ray SIG Science White Paper Workshop

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# Process

- National Academy of Sciences (NAS): “The 2020-2030 Astronomy and Astrophysics Decadal Survey (*Astro2020*) **is a partnership between the National Academies and the astronomical community to survey the field of astronomy and astrophysics and provide priorities for the most important scientific and technical activities of the decade 2020-2030.** It serves as a guide for scientists, policy makers, and agencies alike invested in the astronomical sciences. **The survey is driven by input from the scientific community and led by a survey committee.**”
- “The astronomy and astrophysics decadal survey is a large and influential study run jointly between the Board of Physics and Astronomy and the Space Studies Board of the National Academies. The institutional **goal** of a decadal survey is **to consider the past and current research of the field and provide consensus recommendations for the direction of the field over the next decade.** These recommendations are made by a survey committee who are directed by the statement of task and informed by community input.”

[http://sites.nationalacademies.org/SSB/CurrentProjects/SSB\\_185159](http://sites.nationalacademies.org/SSB/CurrentProjects/SSB_185159)

# Process (continued)

- “The Statement of Task is being negotiated by the Academies and the potential sponsors of the survey. Once the project is funded the Task will be posted here.”

[http://sites.nationalacademies.org/SSB/CurrentProjects/SSB\\_185159](http://sites.nationalacademies.org/SSB/CurrentProjects/SSB_185159)

- Potential sponsors: NASA, NSF, and DoE

- The Committee on Astronomy and Astrophysics (CAA) helps the National Academies and Agencies think about issues relevant to generating the task statement, “stimulate and gather community input prior to the Survey, and pave the way into the Survey”.

- including lessons from previous Surveys and the mid-decadal report input

- CoChairs: Marcia Rieke (U of AZ) and Steve Ritz (UCSC)

- “Participation in white papers will not necessarily disqualify authors from service on Survey panels.”

[https://www.nsf.gov/attachments/242692/public/RiekeMarcia\\_RitzSteve\\_NRCCAAUpdate2\\_150PM.pdf](https://www.nsf.gov/attachments/242692/public/RiekeMarcia_RitzSteve_NRCCAAUpdate2_150PM.pdf)

[http://sites.nationalacademies.org/BPA/BPA\\_048755](http://sites.nationalacademies.org/BPA/BPA_048755)

# Timeline

- As of the [Academies website](#) 23 May 2018:
  - 2018 January AAS Town Hall
  - 2018 March Astro 2020 proposal submitted to Agencies
  - **Summer/Fall: Science White Paper call issued**
  - 2018 ≤ December Chair selected
  - 2019 January AAS Town Hall and other community outreach activitiesIt will take ~2 years to complete the survey process and release the report.
- NB: identical to presentation by CAA CoChairs (personal assessment) to AAAC in Jan 2018 (AAAC = The Astronomy and Astrophysics Advisory Committee federal advisory committee)
- “Members of the **survey committee will be appointed *after* funding** from the sponsors is received. The appointment of the membership of the subpanels will occur after that.”
- Survey **Structure: determined by the Survey Committee *after* it’s appointed**
- National Academy’s statement on community input:

“The call for **science white papers** is expected to be issued in **late summer 2018/early fall 2018** and **will close near the end of 2018**. **Community input is essential to process.** **Community input will be solicited and accepted via white papers, presentations to the survey committee and subpanels, public comments, and more.”**

# Delay?

Thomas Zurbuchen: NASA Associate Administrator for Science

Paul Hertz, Director of NASA's Astrophysics Division

- Zurbuchen and Hertz
  - are concerned that the next decadal committee may not be able to effectively prioritize missions in the next decade due to uncertainties in the status of JWST (launch delay) and WFIRST (proposed termination).
  - suggested to the National Academy that one way to resolve that concern would be to delay Astro2020 by about two years.
  - sought thoughtful input from the community on whether there is another option -- can we have an effective decadal survey even in the context of the uncertainties in the status of JWST and WFIRST? What intentional steps can we take in conducting the decadal survey to ensure that the decadal committee can effectively assess the highest science priorities and recommend a balanced program of activities and missions for the coming decade?
- COPAG+ community survey had >300 respondents. COPAG prepared a report and circulated it to PhysPAG and ExoPAG Executive Committees (ECs) (22 May 2018).
- National Academy requested to include COPAG+ survey results in their response\* to NASA's request to consider a delay. \*Currently being prepared.
- NB: 2 year delay is driven in part by the Academy's schedule to produce Decadal Surveys for 2 more communities after Astro, requiring ~ 2 years / survey, and only being able to run 1 survey at a time.

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**David Spergel**  
@DavidSpergel

The consensus at the NAS astronomy section meeting: "Don't delay the 2020 decadal survey"



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**Even if the delay happens, this will be good preparation and practice for the actual submissions!**

# White Papers

- Call not yet issued.
- General speculation based on eg Jan 2018 AAS Town Hall:
  - Anticipate that the committee will prefer shorter (2-5pg) papers aimed at being more persuasive, w references to published works, particularly given the large volume received for Astro2010.

## Other communities:

- Space-based Gravitational Wave Community
  - already organized around LISA (ESA-led mission w US contribution)
  - NASA LISA Study Team
    - established a set of key science white papers, volunteer writers, and met\* in Feb for a white paper writing workshop. (\*including w remote participants)
    - On-going collaborative writing using online tools
    - Not delaying work
- Space-based X-ray Community
  - Lynx large mission concept study
    - Instrument papers in special edition of SPIE Journal of Astronomical Telescopes, Instruments, and Systems
    - On-going discussion of where to publish science white papers
  - ~3 Probe studies

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<https://www.youtube.com/watch?v=eaXmIPHrHmY>

<https://www.youtube.com/watch?v=ImCBWGDXLf0>